

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of the claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A mounting bracket in combination with a heat exchanger having heat exchanger core formed by a stack of tube members each defining an internal flow passage for a heat exchanger, the mounting bracket comprising:

an elongate, generally flat plate, the plate having an elongated planar central portion for mounting mounted to a the heat exchanger core, the plate being shaped at a first end of the planar central portion to form a first bracket member[[,]] having a first bracket end integrally connected to the first end of the first bracket member extending from the planar central portion and having a, a second distal end for engaging the heat exchanger core at a location spaced apart from the planar central portion and an intermediate portion between the first bracket end and the second distal end that is spaced apart from the heat exchanger core, the first bracket member at least partially surrounding an opening adjacent a side edge of the heat exchanger core; and

a second bracket member separately formed from and mounted to the first bracket member, the second bracket member having a central plate portion extending at least partially across the opening that is at least partially surrounded by the first bracket member, the central plate portion defining a mounting opening there through.

2. (Original) The mounting bracket of claim 1 wherein the plate is shaped at a second end of the planar central portion to form a third bracket member substantially identical and opposed to the first bracket member, and including a forth bracket member substantially identical to the second bracket member and mounted to the third bracket member.

3. (Original) The mounting bracket of claim 1 wherein the flat plate is formed from braze clad metal and the second bracket member is formed from metal that is not braze clad.

4. (Original) The mounting bracket of claim 1 wherein the second bracket member is formed from a plate material having a thickness greater than that of the first plate.

5. (Original) The mounting bracket of claim 1 wherein the second bracket member includes engagement members which extend outward from the central plate portion and engage the first bracket member thereby securing the second bracket member to the first bracket member, the engagement members including first engagement members each having ends for engaging an inner side surface of the first bracket member, and longer second engagement members each having ends for engaging at least an edge of the first bracket member.

6. (Original) The mounting bracket of claim 5 wherein the second engagement member ends include a bent portion for also engaging an outer side surface of the first bracket member.

7. (Currently Amended) The mounting bracket of claim 5 wherein the second bracket member includes a sidewall ~~from~~ extending at an angle from a peripheral area of the central plate portion of the second bracket member, the first bracket member including plate portions having offset tab members formed therein for receiving portions of the sidewall.

8. (Original) The mounting bracket of claim 1 wherein the first bracket member has a substantially C- shaped configuration.

9. (Original) The mounting bracket of claim 1 wherein the plate has a flow orifice formed there through at one end thereof and the other end thereof is blank.

10. (Currently Amended) A heat exchanger comprising:

a stacked tube core including a plurality of stacked elongate tubes each defining an internal fluid passage and having spaced apart inlet and outlet openings in communication with the internal fluid passage, the stacked tube core including an inlet manifold communicating with the inlet openings and an outlet manifold communicating with the outlet manifolds for providing for a flow of fluid through the tubes; and

a mounting bracket including (i) an elongate, generally flat mounting bracket plate mounted to the stacked tube core, the mounting bracket plate including a substantially planar central portion and being shaped at a first end of the planar central portion to form a first bracket member, the first bracket member extending from the planar central portion outward from a side of the stacked tube core and having a distal end for engaging an end of one of the elongate tubes in the stacked tube core at a location on the side of the stacked tube core spaced apart from the first end of the planar central portion, the first bracket member partially surrounding a first bracket member area adjacent ~~[[a]]~~ the side of the stacked tube core; and (ii) a second bracket member mounted to the first bracket member, the second bracket member having a central plate portion extending at least partially across the first bracket member area, the central plate portion having a mounting opening formed there through.

11. (Currently Amended) The heat exchanger of claim 10 wherein the distal end of the ~~second~~ first bracket member includes a central area having a width corresponding to a width of ~~[[an]]~~ the end of one of the one elongate tube members that is engaged by the distal end of the first bracket member, and flange portions extending at substantially right angles from opposite side edges of the central area and defining a channel therewith, the end of the one elongate tube-member being received within the channel.

12. (Currently Amended) The heat exchanger of claim 10 including a final tube at an end of the stacked tube core and a fin located on the final tube, wherein the mounting bracket plate [[of]] includes offset end portions that are offset from the central portion of the plate a predetermined distance, the planar central portion of the mounting bracket plate being in contact with the fin and the offset end portions being in contact with respective end portions of the final tube, the first bracket member extending from one of the offset end portions.

13. (Original) The heat exchanger of claim 12 wherein the predetermined distance is equal to half the height of the fin.

14. (Original) The heat exchanger of claim 13 wherein the tubes each have mating end bosses located at opposite ends thereof forming the inlet and outlet manifolds, the end portions of the mounting bracket plate being in contact with respective end bosses of the final tube.

15. (Original) The heat exchanger of claim 14 wherein one end portion of the mounting bracket plate has a flow opening therethrough in communication with one of the inlet and outlet manifolds and the other end portion of the mounting bracket plate is blank.

16. (Original) The heat exchanger of claim 10 wherein the first bracket member is substantially C- shaped.

17. (Currently Amended) A heat exchanger comprising:
a heat exchanger core including a plurality of stacked elongate tubes each defining an internal fluid passage and having spaced apart inlet and outlet openings in communication with the internal fluid passage, the stacked tube core including manifolds communicating with the inlet and outlet openings for circuiting a flow of fluid through the internal fluid passages of the tubes; and

[[A]] a mounting bracket ~~for securing a component, secured to the heat exchanger core~~ comprising: (i) a unitary first bracket member including a first plate portion having a first end section secured to the heat exchanger core ~~for securing to the component~~, a second plate portion having a second end section secured to the heat exchanger core ~~securing to the component~~, and an intermediate plate portion spaced apart from the heat exchanger core, the first and second plate portions being spaced apart from each other with the intermediate plate portion extending there between, the first, second and intermediate plate portions defining a C- shaped space therebetween; and

a separately formed second bracket member mounted to the first bracket member and having a central portion extending at least partially across the C-shaped space, at least one of the second and first bracket members having engagement members for securing the second bracket member to the first bracket member. the central portion defining a mounting opening there through.

18. (Original) The mounting bracket of claim 17 wherein the first bracket member is formed from braze-clad metal and the second bracket member is formed from non-braze clad metal.

19. (Original) The mounting bracket of claim 17 wherein the first bracket member and the second bracket member are each formed from plate material, the plate material of the first bracket member being thinner than the plate material of the second bracket material.

20. (Original) The mounting bracket of claim 17 wherein the engagement members extending outward from the central portion of the second bracket member and engaging the first bracket member, the engagement members including first and second engagement members having bent ends for respectively engaging opposite side surfaces of the first mounting bracket, the first engagement members being shorter than the second engagement members.

21. (Original) A method for forming a heat exchanger comprising steps of:
providing a heat exchanger core including a plurality of braze clad stacked tube members;
providing a braze clad generally planar bracket plate and connecting the bracket plate to the heat exchanger core, the bracket plate having a generally C-shaped first bracket member extending beyond an end of the heat exchanger core;
providing a non-braze clad second bracket member having engagement members for engaging the first bracket member and connecting the engagement members to the first bracket member, the second bracket member including a central portion defining a mounting opening therethrough; and
furnace brazing the second bracket member to the first bracket member.

22. (New) A mounting bracket for a heat exchanger, comprising:
an elongate, generally flat plate, the plate having a planar central portion for mounting to a heat exchanger core, the plate being shaped at a first end of the planar central portion to form a first bracket member, the first bracket member extending from the planar central portion and having a distal end for engaging the heat exchanger at a location spaced apart from the planar central portion, the first bracket member at least partially surrounding an opening; and
a second bracket member separately formed from and mounted to the first bracket member, the second bracket member having a central plate portion extending at least partially across the opening that is at least partially surrounded by the first bracket member, the central plate portion defining a mounting opening there through,
wherein the second bracket member includes engagement members which extend outward from the central plate portion and engage the first bracket member thereby securing the second bracket member to the first bracket member, the engagement members including first engagement members each having ends for engaging an inner side surface of the first bracket member, and longer second engagement members each having ends for engaging at least an edge

of the first bracket member, and the second engagement member ends include a bent portion for also engaging an outer side surface of the first bracket member.

23. (New) A heat exchanger comprising:

a stacked tube core including a plurality of stacked elongate tubes each defining an internal fluid passage and having spaced apart inlet and outlet openings in communication with the internal fluid passage, the stacked tube core including an inlet manifold communicating with the inlet openings and an outlet manifold communicating with the outlet manifolds for providing for a flow of fluid through the tubes; and

a mounting bracket including (i) an elongate, generally flat mounting bracket plate mounted to the stacked tube core, the mounting bracket plate including a substantially planar central portion and being shaped at a first end of the planar central portion to form a substantially C- shaped first bracket member, the first bracket member extending from the planar central portion and having a distal end for engaging the stacked tube core at a location spaced apart from the first end of the planar central portion, the first bracket member partially surrounding a first bracket member area adjacent a side of the stacked tube core; and (ii) a second bracket member mounted to the first bracket member, the second bracket member having a central plate portion extending at least partially across the first bracket member area, the central plate portion having a mounting opening formed there through.